

FIC VC31 PCI/AGP SYSTEM BOARD BOARD LEVEL COMPATIBILITY TEST REPORT

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Supervisor	Tester

FIC Research & Development Department

Revision History



Document Release	Date	Change Item	ECN
Revision 1.00	10/22/2001	Initial Release.	
Revision 1.01	2/20/2002	Add support Intel Pentium 4 Northwood CPU 2.0/2.2GHz Add support ATI Radeon 8500 LE AGP ASUS AGP-V8200 T2 Deluxe AGP Matrox Millennium G550 AGP	



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1. Introduction

FIC's motherboards undergo a comprehensive suite of stringent software and hardware compatibility tests to ensure that they can not only run a complete range of operating systems and software packages, but that they can also be installed with a full selection of add-on cards and peripheral devices, such as AGP,VGA, SCSI, and network adapters as well as HDDs, FDDs, CD-ROM Drives and Fax/Modems. A board is deemed to have passed the compatibility testing suite when it has met the following criteria:

- All application software available for IBM compatible products works properly.
- All common internal and external hardware available to the IBM AT-Bus and PCI compatible systems functions properly.
- All hardware and software can be installed according to the instructions provided to the user.
- All legal configurations (IRQ , I/O addresses, DMA levels) function properly.
- All applications have been tested with and without drivers provided on the support disk.
- All operating systems have been installed and tested with each processor, with and without the most critical mode selected by setup.

2. Mainboard Features

Model Name : VC31 PCB Rev 1.4
Product Name : Intel 845 Based Mainboard
System BIOS : Award BIOS Version IEA42
PCI IDE : Internal PCI Mastre dual IDE
I/O : SMsC LPC47M192-NC

3. Mainboard CPU Supports:

Intel : (Willamette)

Intel Processors	Bus	Package	Status
Pentium 4 1.5GHz	100	FC-PGA2	Pass
Pentium 4 1.7GHz	100	FC-PGA2	Pass
Pentium 4 1.8GHz	100	FC-PGA2	Pass
Pentium 4 1.9GHz	100	FC-PGA2	Pass
Pentium 4 2.0GHz	100	FC-PGA2	Pass

Intel : (Northwood)

Intel Processors	Bus	Package	Status
Pentium 4 2.0GHz	100	FC-PGA2	Pass
Pentium 4 2.2GHz	100	FC-PGA2	Pass

4. System Specification for Hardware and Software Utilities

The mainboard hardware portion was configured as follows :

Item	Description
System Core Logic	Intel 845 (82845+82801BA)
System Cache	128K/256K Pipeline Burst SRAM Built-in CPU
System Memory	Maximum : 2GB SDRAM 168 pins single RAS and Double RAS DIMM RAM Module
System Slots	1 AGP and 3 PCI and 1 CNR slots
Audio	Intel AC'97 Audio with ALC201 codec
LAN	Realtek RTL8100L 10/100 LAN Chip
LPC	SMsC LPC47M192-NC Support Normal,EPP,ECP mode and IR interface

4.1 Main Functionality :

Num.	M/B function	Result
1	ACPI Ready (under Win 98 SE/ME/Win 2000)	PASS

2	Wake On LAN / Wake On Ring	PASS
3	RTC Alarm Function	PASS
4	H/W Monitoring (+/-12V,+/-5V,+5VR)	PASS
5	NOVUS II	BIOS Easy Kit
		BIOS Flash Protect (Guardian feature)
6	Ultra ATA-33/66/100 Enhanced IDE Interface	PASS
7	Onboard AC'97 Audio	PASS
8	Onboard RTL8100L LAN	PASS
9	CNR Modem/Audio Function	PASS
10	USB Function	PASS
11	Power Failure feature	PASS
12	Year 2000 Compliance	PASS

4.2 Main Software Utilities :

Num.	M/B function	Version	Result
1	Intel ATA Storage driver for Win 9x/NT/ME/2000	6.10.011	PASS
2	Intel Chipset Software Install Utility	3.10.1011	PASS
3	ALC201 codec driver for Win 9x/ME/2000	5.10.00.3530	PASS
4	ALC201 codec driver for Win NT	4.03.00.3012	PASS
5	Realtek RTL8100L LAN	3.95	PASS
6	Award BIOS Flash ROM Utilities	8.02A	PASS

5. Jumper Function Verification

Description	Jumper Name	Default Option	Status
Speaker Connector	SPK	Open	Pass
Power LED (Single color)	PW_LED	Open	Pass
Power LED (Dual color)	LED_G/LED_Y	Open	Pass
IDE LED Connector	HD_LED	Open	Pass
Reset Switch	RST	Open	Pass
Remote Power Switch	PW_SW	Open	Pass
Sleep Switch	SP_SW	Open	Pass
CPU FAN Connector	CPU_FAN	Open	Pass
North Bridge FAN Connector	CHIP_FAN	Open	Pass
Chassis FAN Connector	SYS_FAN	Open	Pass
Clear CMOS	SW1-1	Off	Pass
Clear Password	SW1-2	Off	Pass
IR interface	IRR/IRTX	Open	Pass
Host Frequency Jumper	JP1	1-2	Pass

6. Stability Test

6.1 Stress Test:

System Configuration



CPU	: Intel P 4 1.7GHz	Audio	: Onboard ALC201 AC'97 Audio
Cache Memory	: 256 K	Mouse	: Microsoft PS/2 mouse
Memory	: SDRAM 256MB (128MB x 2)	PowerSupply	: ENERMAX EG-301P-VE 300W
HDD 1	: Maxtor 92049U4 20.4GB	O.S. Environment:	Windows 2000
HDD2	: IBM DJNA-371350 13.5GB		
ZIP	: ZIP 250		
DVD-ROM1	: Afreedy DD-4008E 8X		
VGA	: Visiontek Geforce3 AGP		
FDD	: NEC FD1231T 1.44MB		

Test Result						
BIOS detect	Install OS	All driver install	PM	CC WS 2001	Stress burn in	DVD/VCD play
Pass	Pass	Pass	Pass	Pass	Pass	Pass

6.2 PCB Cool Boot Test: (12 hours)

System Configuration	
CPU : Intel P4 1.5GHz Cache Memory : 256 K Memory : SDRAM 256MB (128MB x 2) VGA : ASUS AGP-V7100 AGP	FDD : NEC FD1231T 1.44MB PowerSupply : Seventeam ST-300BLV 300W

Test Result	
Cool Boot (over 600 times)	Pass

7. Field (Stress) Test: Dynamic Burn-in Tests

Software Name	Duration	Result
Winstone 2001 Under WIN ME	24hr.	Pass
Test Configurations for Win ME	Intel Pentium 4 1.5GHz IBM DTLA-307045 ATA/100 45GB HDD Transcend 256MB SDRAM Memory.(Winbond) X 2 ASUS AGP-V7700 AGP	
CC Winstone 2001 Under WIN 2000	24hr.	Pass
Test Configurations for Windows 2000	Intel Pentium 4 1.8GHz Fujitsu MPG3204AT ATA/100 20.4GB HDD Transcend 256MB SDRAM Memory.(Winbond) X 2 ASUS AGP-V7700 AGP	

8. Hardware Compatibility Test Suite

8.1 Memory

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000 .

☒ Win 2000 Ver: 5.00.2195 .

CPU Intel Pentium 4 1.8GHz (Bus clock 100MHz) ☒ Intel

HDD Maxtor 53073H6 30.7GB IDE ☒ ATA/66 ☒ ATA/100

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

VGA Matrox Millennium G400 MAX ☒ Onboard ☒ AGP 4X

CD-ROM Lite-On LTN-485S 48X Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Sound ALC201 AC'97 ☒ PCI Slot: ☒ On board

Mouse Microsoft IntelliMouse PS/2 Mouse ☒ COM ☒ PS/2

The following PC-133 SDRAM module test Winstone 2001/3D Mark 2001 under Windows ME/2000 with BIOS set up default value and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

SDRAM DIMM Module (PC133)

Vender	IC Part No.	ECC	Size	Side	Module No.
SIEMENS	HYB39S256800BT-7.5	Yes	512MB	D	HYS72V64220GU-7.5
PQI	PQ3S168V75	No	256MB	D	DT133256MB-T00951
MICRON	MT48LC8M8A2-75B	No	128MB	D	MT16LSDT1664AG-133B4
KingMAX	KSV684T4A1A-06	No	256MB	D	MPJB63S-68KX
Transcend	K4S640832D-TC75	No	256MB	D	TS16MLS64V6W (SEC)
Apacer	GM72V66841XT75	No	128MB	D	71.73350.064 (Hyundai)
Buffalo	GM72V66841ET7K	No	128MB	D	VS133-128M (Hyundai)
Hynix	HY57V64820HG T-K	No	128MB	D	HYM76V16635HGT8-K
	HY57V28820AT-K	No	128MB	S	HYM71V16635AT8-K
	HY57V28820AT-K	No	256MB	D	HYM71V32635AT8-K
	HY57V28820HCT-K	No	256MB	D	HYM71V32635HCT8-K
KingSton	W981208BH-75	No	256MB	D	KVR133X64C3/256(Winbond)
	0312804CT3A-75A	No	256MB	D	KVR-PC133/256 (IBM)
	V54C3128804VAT7	No	256MB	D	KVR133X64C3/256(Mosel)
	D45128841G5-A75-9JF	No	256MB	D	KVR133X64C3/256 (NEC)
	HYB39S64800BT-7.5	No	128MB	D	KVR-PC133/128 (Infineon)
Crucial	MT48LC16M8A2-7E	No	256MB	D	CT32M64S4D7E.16T (Micron)
	MT48LC16M8A2-7E	Yes	256MB	D	CT32M72S4D7E.18T (Micron)
Panram	PM72V56841CT-6	No	512MB	D	(SEITEC)
Nanya	NT5SV32M8AT-7K	No	512MB	D	NT512S64V8HA0G-7K (Nanya)

8.2 Add-on Cards

8.2.1 Display Adapter Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000 .

CPU Intel Pentium 4 1.8GHz (Bus clock 100MHz) ☒ Intel

HDD Seagate ST-320414A 20GB IDE ☒ ATA/66 ☒ ATA/100

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Memory Apacer 128MB(Infineon) Total: 256 MB ☒ PC100 ☒ PC133

CD-ROM Pioneer DVD-114 10X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Sound ALC201 AC'97 ☒ PCI Slot: ☒ On board

Mouse Logitech MouseMan Mouse ☒ COM ☒ PS/2

The following AGP 4X VGA cards test 3Dmark 2001/Final Reality 1.01 /Suspend to Disk(S4) under Windows ME with their respective VGA drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

4X AGP Display Adapter Products

Vendor	Model Name	Product Description	Driver version
Leadtek	Riva TNT2 M64	WinFast 3D S325	4.13.01.1200
	Riva TNT2 Vanta	WinFast 3D S320V	4.13.01.1200
	GeForce256	Winfast GeForce256	4.13.01.1200
	GeForce2 MX	Winfast GeForce2 MX	4.13.01.1200
	Riva TNT2 Pro	WinFast 3D S320 II Pro	4.13.01.1200
	Riva Geforce3	WinFast Geforce3	4.13.01.1200
Matrox	MGA-G400	Millennium G400 SH	4.12.01.1810
	MGA-G400	Millennium G400 MAX	4.12.01.1810
	MGA-G450	Millennium G450	4.12.01.1810
	MGA-G550	Millennium G550	4.12.01.1220
ATI	Rage 128 Pro	Rage Fury Pro	4.13.7110
	Rage 128 Pro	XPert 2000 Pro	4.13.7110
	Rage 128 Pro	All-In-Wonder 128 Pro	4.13.7110
	Radeon	Radeon	4.13.7115
	Radeon VE	Radeon VE	4.13.7115
	Radeon	All-In-Wonder Radeon	4.13.7115
	Radeon 8500 LE	Radeon 8500 LE	4.13.7206
Cardex	Riva TNT2 Vanta	Cardexpert TNT2 Vanta	4.13.01.1241
	GeForce2 MX	GeForce2 MX	4.13.01.1241
ASUS	Riva TNT2 Pro	AGP-V3800 Pro	4.13.01.1260
	Riva GeForce 256	AGP-V6600	4.13.01.1260
	GeForce256 DDR	AGP-V6800	4.13.01.1260
	GeForce2 MX	AGP-V7100	4.13.01.1260
	GeForce2 MX 400	AGP-V7100 Pro	4.13.01.1260
	Riva GeForce2 GTS	AGP-V7700	4.13.01.1260
	Riva GeForce2 GTS	AGP-V7700 Deluxe	4.13.01.1260
	Riva GeForce3	AGP-V8200 Deluxe	4.13.01.1260
	GeForce3 Ti200	AGP-V8200 T2 Deluxe	4.13.01.2181

Creative	Riva Geforce 256	3D Blaster GeForce256	4.12.01.0650
	Riva Geforce 256	3D Blaster GeForce Pro	4.12.01.0650
	GeForce2 GTS	3D Blaster Geforce2 GTS	4.12.01.0650
Visiontek	Riva Geforce3	Geforce3 (TV out)	4.13.01.1200
ELSA	Riva TNT2	ERAZOR III	4.13.01.1200
	Riva TNT2	Synergy II	4.13.01.1240
	Riva TNT2 M64	ERAZOR III LT	4.13.01.1240
	Riva TNT2 Vanta	ERAZOR III LT-16	4.13.01.1240
	Riva TNT2 Pro	ERAZOR III Pro	4.13.01.1240
	Riva GeForce 256 DDR	ERAZOR X ²	4.13.01.1240
	Riva Geforce2 GTS	GLADIAC	4.13.01.1240
	GeForce2 MX	GLADIAC MX	4.13.01.1240
	Riva Geforce2 Ultra	GLADIAC Ultra	4.13.01.1240
	GeForce2 MX 200	GLADIAC 311	4.13.01.1240
	GeForce2 MX 400	GLADIAC 511	4.13.01.1240
	GeForce2 GTS Pro	GLADIAC Pro	4.13.01.1240
	GeForce3	GLADIAC 920	4.13.01.1240

8.2.2 SCSI Adapter Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000.

☒ Win 2000 Ver: 5.00.2195.

CPU Intel Pentium 4 1.7GHz ☒ Intel

Memory Buffalo 64MB (Hyundai) Total: 128 MB ☒ PC100 ☒ PC133

VGA Visiontek Geforce3 ☒ Onboard ☒ AGP 4X

HDD IBM DMVS IEC-950 9.1GB ☒ Ultra II SCSI ☒ Ultra Wide

CD-ROM Toshiba XM-6210B 32X SCSI CD-ROM ☒ Ultra SCSI ☒ Ultra Wide

Sound ALC201 AC'97 ☒ PCI_Slot: ☒ On board

Mouse Logitech MouseMan Mouse ☒ COM ☒ PS/2

The following PCI SCSI cards run Winstone 2001 under Windows ME/2000 with their respective SCSI drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

Vendor	Model Name	Product Description	Bus I/F
Adaptec	AHA-2940U2W	Adaptec AHA-2940U2W PCI SCSI card	PCI
	ASC-39160	Adaptec Ultra 160 PCI SCSI card 39160	PCI
Tekram	DC-390U3W	Tekram DC-390U3W PCI SCSI	PCI

8.2.3 PCI Modem Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000 .
CPU Intel Pentium 4 1.7GHz ☒ Intel
Memory Buffalo 64MB(Hitachi) Total: 128 MB ☒ PC100 ☒ PC133
VGA Visiontek Geforce3 ☒ Onboard ☒ AGP 4X
HDD IBM DJNA-371350 13.5GB IDE ☒ ATA/66 ☒ ATA/100
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
CD-ROM Hitachi GD-2500 6X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS
Sound ALC201 AC'97 ☒ PCI_Slot: __, ☒ On board
Mouse Microsoft IntelliMouse PS/2 Mouse ☒ COM ☒ PS/2

The following PCI modem card test includes connecting to the internet and download files under under Windows ME with their respective modem drivers installed .

Vendor	Product Description	Bus I/F
CIS	PSL 56K data/Fax/RTAP	PCI
Askey	1456VQH75	PCI

8.2.4 CNR Audio/Modem Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000 .
CPU Intel Pentium 4 1.7GHz ☒ Intel
Memory Buffalo 64MB(Hyundai) Total: 128 MB ☒ PC100 ☒ PC133
VGA Visiontek Geforce3 ☒ Onboard ☒ AGP 4X
HDD IBM DJNA-371350 13.5GB IDE ☒ ATA/66 ☒ ATA/100
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
CD-ROM Hitachi GD-2500 6X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS
Sound ALC201 AC'97 ☒ PCI_Slot: __, ☒ On board
Mouse Microsoft IntelliMouse PS/2 Mouse ☒ COM ☒ PS/2

The following CNR card test includes connecting to the internet and download files under under Windows ME with their respective modem drivers installed .

Vendor	Product Description	Type
Mediatek	SoundMAX	Audio
Castle Net	56KV.90 Modem Riser Card (MC810)	Modem
TAICOM	56KV.90 Modem Riser Card (MC810)	Modem

8.2.5 PCI IDE RAID Products

Test Configuration:

OS Ver ☒ Win 2000 Ver: 5.00.2195 .

CPU Intel Pentium 4 1.5GHz ☒ Intel
Memory Buffalo 128MB(Hitachi) **Total: 256 MB** ☐ PC100 ☒ PC133
VGA ASUS AGP-V7700 Deluxe ☐ Onboard ☒ AGP 4X
HDD1 Maxtor 51536H2 15.3GB IDE ☐ ATA/66 ☒ ATA/100
HDD2 Fujitsu MPG3204AT 20.4GB IDE ☐ ATA/66 ☒ ATA/100
CD-ROM Panasonic SR-8587-B 16X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS
Sound ALC201 AC'97 ☐ PCI Slot: ☐ On board
Mouse Microsoft IntelliMouse PS/2 Mouse ☐ COM ☒ PS/2

The following PCI RAID card test RAID 1 under Windows 2000 with their respective drivers installed.

Vendor	Product Description	Chip
Promise	Fast TRAK100 ATA RAID Controller Card	PROMISE PDC20267

8.3 Storage

8.3.1 SCSI Peripheral Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000
☒ Win 2000 Ver: 5.00.2195
CPU Intel Pentium 4 1.7GHz ☒ Intel
Memory V-TEC 64MB (Hyundai) **Total: 128 MB** ☐ PC100 ☒ PC133
VGA Visiontek Geforce3 ☐ Onboard ☒ AGP 4X
SCSI AHA-2940U2W Ultra2 Wide SCSI ☐ ISA ☒ PCI Slot: 2
Mouse Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

The following SCSI devices test and WinStone 2001 under Windows ME/2000 with their respective SCSI drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

ITEM	Vendor	Model Name	Product Description
Hard Disk	IBM	COMP IEC-950	Ultra2 Wide 9.1GB
	Seagate	ST-39173W	Barracuda 9LP Ultra Wide 9.1GB
	Quantum	Atlas V	Ultra Wide 18GB
CD-ROM	Plextor	PX-40Tsi	Ultra SCSI CD-ROM 40X
	Toshiba	XM-6210B	Ultra SCSI CD-ROM 32X
	Afreey	CD-2050S	Ultra SCSI CD-ROM 50X
	TEAC	CD-523S	Ultra SCSI CD-ROM 32X

8.3.2 IDE Fixed Disk Drive Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000
CPU Intel Pentium 4 1.5GHz ☒ Intel
Memory KingMAX 128MB (KingMAX) **Total: 256 MB** ☐ PC100 ☒ PC133



VGA Matrox Millennium G400 MAX

Onboard ☒ AGP 4X

CD-ROM Lite-On LTD-122 12X IDE DVD

Channel: YPM YPS ☒ SM YSS

Sound ALC201 AC'97

YPCI_Slot: __ ☒ On board

Mouse Logitech First Mouse+ Mouse

YCOM ☒ PS/2

The following IDE devices test and WinStone 2001/Copy large files under Windows ME with Intel ATA Storage drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

IDE ATA/100

Vendor	Model Name	Mode	Capacity
IBM	DTLA-307030	Ultra ATA 100	30.7GB
	IC35L040A	Ultra ATA 100	40GB
	DTLA-307045	Ultra ATA 100	46.1GB
	DTLA-307060	Ultra ATA 100	61.4GB
Maxtor	53073H6	Ultra ATA 100	30.6GB
	34098H4 40.9GB	Ultra ATA 100	40.9GB
	54098H8 40.9GB	Ultra ATA 100	40.9GB
	5T060H6	Ultra ATA 100	61GB
Seagate	ST320414A	Ultra ATA 100	20GB
	ST340824A	Ultra ATA 100	40GB
WD	Caviar WD300	Ultra ATA 100	30GB
	Caviar WD400	Ultra ATA 100	40GB
	Caviar WD600	Ultra ATA 100	60GB
	Caviar WD800	Ultra ATA 100	80GB
Fujitsu	MPG3204AT	Ultra ATA 100	20.4GB
	MPG3307AT	Ultra ATA 100	30.7GB
Samsung	SV3063H	Ultra ATA 100	30.6GB

8.3.3 ATAPI CD-ROM /DVD-ROM Device Product

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000
 CPU Intel Pentium 4 1.5GHz ☒ Intel
 Memory KingSton 64MB (Infineon) Total: 128 MB ☐ PC100 ☒ PC133
 VGA Matrox Millennium G400 MAX ☐ Onboard ☒ AGP 4X
 HDD Seagate ST-320414A 20GB IDE ☐ ATA/66 ☒ ATA/100
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS
 Sound ALC201 AC'97 ☐ PCI_Slot: ☒ On board
 Mouse Logitech TrackmanMarble Mouse ☐ COM ☒ PS/2

The following IDE devices test play VCD or DVD under windows ME with Intel ATA Storage drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

8.3.3.1 ATAPI CD-ROM:

Vendor	Model Name	Product Description
LITE-ON	LTN-403L	ATAPI CD-ROM 40X UDMA2
	LTN-485S	ATAPI CD-ROM 48X UDMA2
Acer	650P	ATAPI CD-ROM 50X UDMA2
AOpen	CD-952E/AKH	ATAPI CD-ROM 52X UDMA2
BTC	BCD 48SB	ATAPI CD-ROM 48X UDMA2
Creative	CD4834E	ATAPI CD-ROM 48X Mode4
	CD5220E	ATAPI CD-ROM 52X Mode4
ASUS	CD-S400/A	ATAPI CD-ROM 40X UDMA2
	CD-S500/A	ATAPI CD-ROM 50X UDMA2
SONY	CDU-4811	ATAPI CD-ROM 48X UDMA2

8.3.3.2 ATAPI DVD-ROM:

Vendor	Model Name	Product Description
ASUS	DVD-E612	ATAPI DVD-ROM 12X
SONY	DDU1211	ATAPI DVD-ROM 12X
Pioneer	DVD-114	ATAPI DVD-ROM 10X
	DVD-115	ATAPI DVD-ROM 16X
	DVD-105S	ATAPI DVD-ROM 16X
	DVD-116	ATAPI DVD-ROM 16X (UDMA66)
Panasonic	SR-8585-B	ATAPI DVD-ROM 8.0X
	SR-8587-B	ATAPI DVD-ROM 16X
Acer	DVP1640A	ATAPI DVD-ROM 16X
Afreedy	DD-4008E	ATAPI DVD-ROM 8X
	DD-4010E	ATAPI DVD-ROM 10X
Creative	DVD1242E	ATAPI DVD-ROM 12X
NEC	DV-5700B	ATAPI DVD-ROM 12X
Lite-On	LTD-122	ATAPI DVD-ROM 12X

8.4 Peripherals

8.4.1 Parallel/Serial Port Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000.

CPU Intel Pentium 4 1.7GHz ☒ Intel

Memory KingMAX 128MB(KingMAX) Total: 256 MB ☐ PC100 ☒ PC133

HDD WD 300 30GB IDE ☐ ATA/66 ☒ ATA/100

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM Panasonic SR-8585-R 8X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS

VGA Leadtek Geforce2 MX ☐ Onboard ☒ AGP 4X

Sound ALC201 AC'97 ☐ PCI Slot: ☒ On board

Mouse Logitech TrackMan Marble Mouse ☐ COM ☒ PS/2

The following Parallel/Serial devices be tested under Windows ME with Intel ATA Storage drivers installed.

Vendor	Product Description	Bus I/F
IOMEGA	Parallel ZIP 250	LPT
Parallel	DirectParallel universal cable	LPT
Logitech	WingMan Formula Force joystick	COM
Kodak	DC210 InfraRed/Serial port Digital camera	COM

8.4.2 Mouse Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000.

CPU Intel Pentium 4 1.5GHz ☒ Intel

Memory Buffalo 128MB (Winbond) Total: 256 MB ☐ PC100 ☒ PC133

HDD Seagate ST-340824A 40GB IDE ☐ ATA/66 ☒ ATA/100

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM Lite-On LTD-122 12X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS

VGA ATI Rage Fury Pro ☐ Onboard ☒ AGP 4X

Sound ALC201 AC'97 ☐ PCI Slot: ☒ On board

The following Mouse devices test Office 2000 and Game under Windows ME with Mouse drivers installed.

Vendor	Product Description	Bus I/F
Microsoft	IntelliMouse USB/PS2 Mouse (Optical)	USB/PS2
	IntelliMouse explorer USB/PS2 Mouse	USB/PS2
Logitech	Logitech MouseMan Serial Mouse	Serial/ PS2
	Logitech First Mouse+ Serial Mouse	Serial/ PS2
	Logitech Wheel Mouse (Optical)	USB/PS2
Samsung	Cyber Beetle Mouse (Optical)	PS2
Genius	NetScroll Optical	PS2

8.4.3 USB Device Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000.
 CPU Intel Pentium 4 1.7GHz ☒ Intel
 Memory KingMAX 128MB(KingMAX) Total: 256 MB ☐ PC100 ☒ PC133
 HDD Maxtor 52049H4 20.4GB IDE ☐ ATA/66 ☒ ATA/100
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS
 CD-ROM Afreey DD-4010E 10X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS
 VGA ELSA GLADIAC 511 ☐ Onboard ☒ AGP 4X
 Sound ALC201 AC'97 ☐ PCI Slot: ☒ On board
 Mouse Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

The following USB devices be tested under Windows ME with Win ME default driver installed.

Type	Vendor	Description
Mouse	Logitech	USB Wheel Mouse (M-BB48)
		USB MouseMan Wheel (M-BA47)
		USB Wheel optical Mouse (M-BD58)
	Microsoft	IntelliMouse Mouse (w IntelliEye)
		IntelliMouse Optical USB Mouse
		IntelliMouse explorer USB Mouse
	Cypress	7-895 Mouse
HUB	Belkin	Express Bus F5U001
	SOHOUSB	Unique Energy Saving (4-Port USB Hub)
Camera	Kodak	DVC323
	IBM	XVP610
Keyboard	BTC	8113W
	Microsoft	Natural Keyboard Pro
Printer	EPSON	Stylus Color 740
		Stylus Color 900
Scanner	EPSON	GT-7000
	HP	ScanJet 4200C
Ethernet	CATC	USB Ethernet Link
Speaker	YAMAHA	YST-MS35D
MO	OLYMPUS	Turbo MO MINI (MOS3390S)
HDD	Vipower	VP-8058 Mobile USB Adapter
ZIP	iomega	ZIP 250
FDD		Generic USB FDD
GamePad	Microsoft	SideWinder Game Voice
Joystick	Logitech	WingMan Formula Force joystick
	Microsoft	SideWinder Precision 2

8.4.4 Game Port Device Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000.
 CPU Intel Pentium 4 1.5GHz ☒ Intel
 Memory Buffalo 128MB (Winbond) Total: 256 MB ☐ PC100 ☒ PC133

HDD Seagate ST-340824A 40GB IDE ÿATA/66 ☒ ATA/100
Channel: ☒ PM ÿPS ÿSM ÿSS
CD-ROM Lite-On LTD-122 12X IDE DVD Channel: ÿPM ÿPS ☒ SM ÿSS
VGA ATI Rage Fury Pro ÿOnboard ☒ AGP 4X
Sound ALC201 AC'97 ÿPCI_Slot: __, ☒ On board
Mouse Microsoft IntelliMouse Mouse ÿCOM ☒ PS/2

The following Joystick & Game Pad devices test Game under Windows ME with themselves default driver installed.

Type	Vendor	Product Description
GamePad	Logitech	ThunderPad Digital
Joystick	Microsoft	SideWinder force feedback pro joystick
	Logitech	Wing Man Extreme digital joystick
		CyberMan2 Digital Game Controller

8.5 Power Supply Products

Test Configuration:

OS Ver ☒ Win ME Ver: 4.90.3000 .
CPU Intel Pentium 4 1.5GHz ☒ Intel
Memory SIMONS 128MB(NEC) Total: 256 MB ÿPC100 ☒ PC133
HDD Seagate ST-340824A 40GB IDE ÿATA/66 ☒ ATA/100
Channel: ☒ PM ÿPS ÿSM ÿSS
CD-ROM SONY DDU1211 12X IDE DVD Channel: ÿPM ÿPS ☒ SM ÿSS
VGA ASUS AGP-V7100 ÿOnboard ☒ AGP 4X
Sound ALC201 AC'97 ÿPCI_Slot: __, ☒ On board
Mouse Logitech TrackMan Marble Mouse ÿCOM ☒ PS/2

The following Power supply devices test Cool/Warm boot, restart and power management under Windows ME with over 5 times.

Vendor	Product Description	Power	Type
DELTA	DPS-300KB-1 A Rev:00	300W	ATX
Seventeam	ST-250BLP	250W	ATX
	ST-250GL	250W	ATX
	ST-300BLV	300W	ATX
Enlight	HPC-340-101	340W	ATX
Seasonic	SS-250FS	250W	ATX



9. Software Compatibility Test Suite

9.1 Base Operating System

9.1.1 Microsoft Windows 98 SE:

Test Configuration:

CPU Intel Pentium 4 1.5GHz ☒ Intel
 Memory Transcend 256MB(SEC) Total: 512 MB ☐ PC100 ☒ PC133
 HDD WD 400 40GB IDE ☐ ATA/66 ☒ ATA/100
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS
 VGA ASUS AGP-V7700 Deluxe ☐ Onboard ☒ AGP 4X
 Sound ALC201 AC'97 ☐ PCI_Slot: __ ☒ On board
 CD-ROM Creative DVD1242E 12X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS
 Mouse Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

Test Item	Result	Remark
FDISK (FAT32)	PASS	
Install Win OS	PASS	
Format FDD	PASS	
Diskcopy	PASS	
Large file Copy (one file over 500MB)	PASS	
Cool boot 2 times under every combination	PASS	
Reboot 2 times under every combination	PASS	
FIC CD-PRO all Application Install & Test	PASS	
CoreTest 92 (Transfer Rate test)	PASS	
Device Management check (No Caution)	PASS	
VGA Resolution/Color change	PASS	
Install Office 2000	PASS	
Auto Shutdown (system power off)	PASS	
Defrag test	PASS	
VCD play (name: <i>Deep Blue Sea</i>)	PASS	
Power Management	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To Memory)	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
System Shutdown	Power button (Setting from PM)	PASS
	Start → Shut down item	PASS

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows 98 SE	4.10.2222A	English	Microsoft	Pass

9.1.2 Microsoft Windows ME:

Test Configuration:

CPU Intel Pentium 4 1.5GHz ☒ Intel
 Memory KingSton 256MB(IBM) Total: 512 MB ☐ PC100 ☒ PC133
 HDD Maxtor 54098H8 40.9GB IDE ☐ PIO4 ☐ ATA/66 ☒ ATA/100
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS
 VGA ELSA GLADIAC Ultra ☐ Onboard ☒ AGP 4X
 Sound ALC201 AC'97 ☐ PCI_Slot: ☒ On board
 CD-ROM Pioneer DVD-116 16X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS
 Mouse Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

Test Item	Result	Remark
FDISK (FAT32)	PASS	
Install OS	PASS	
Format FDD	PASS	
Device Management check (No Caution)	PASS	
VGA Resolution/Color change	PASS	
Large file Copy (one file Over 500MB)	PASS	
Install Office 2000	PASS	
Media Player 7.0 (play MIDI/MP3/CD Audio)	PASS	
VCD/DVD play (name: <i>Runaway Bride</i>)	PASS	
Power Management (Stand By function)	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To Memory)	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
Hibernate (Suspend To Disk)	Power button	PASS
	Start → Hibernate item	PASS
	Time Out	PASS
System Shutdown	Power button	PASS
	Start → Shut down item	PASS
IE 5.5 (Install LAN card to connect to Internet)	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows ME	4.90.3000	English	Microsoft	Pass

9.1.3 Microsoft Windows XP/Home Edition:

Test Configuration:

CPU Intel Pentium 4 1.5GHz ☒ Intel
Memory Hynix 256MB(Hyundai) **Total:** 512 MB ☐ PC100 ☒ PC133
HDD Maxtor D540X-4K 40GB IDE ☐ PIO4 ☐ ATA/66 ☒ ATA/100
Channel: ☒ PM ☐ PS ☐ SM ☐ SS
VGA Visiontek Geforce3 ☐ Onboard ☒ AGP 4X
Sound ALC201 AC'97 ☐ PCI_Slot: __ ☒ On board
CD-ROM Pioneer DVD-116 16X IDE DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS
Mouse Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

Test Item	Result	Remark
FDISK (FAT32)	PASS	
Install OS	PASS	
Format FDD	PASS	
Device Management check (No Caution)	PASS	
VGA Resolution/Color change	PASS	
Large file Copy (one file Over 500MB)	PASS	
Install Office 2000	PASS	
Media Player 7.0 (play MIDI/MP3/CD Audio)	PASS	
VCD/DVD play (name: <i>Runaway Bride</i>)	PASS	
Power Management (Stand By function)	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To Memory)	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
Hibernate (Suspend To Disk)	Power button	PASS
	Start → Hibernate item	PASS
	Time Out	PASS
System Shutdown	Power button	PASS
	Start → Shut down item	PASS
IE 6.0 (Install LAN card to connect to Internet)	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows XP / Home Edition	2002	English	Microsoft	Pass

9.1.4 Microsoft Windows 2000 + Service Pack 2:

Test Configuration:

CPU Intel Pentium 4 1.5GHz ☒ Intel
 Memory KingSton 256MB(NEC) Total: 512 MB ☐ PC100 ☒ PC133
 HDD IBM DTLA-307060 61.4GB IDE ☐ PIO4 ☐ ATA/66 ☒ ATA/100
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS
 VGA ATI Radeon ☐ Onboard ☒ AGP 4X
 Sound ALC201 AC'97 ☐ PCI_Slot: __ ☒ On board
 CD-ROM Panasonic SR-8587-B 16X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS
 Mouse Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

Test	Item	Result	Remark
Install Win 2000 with NTFS (boot from CD)		PASS	
Install OS		PASS	
Format FDD		PASS	
FIC CD-PRO all M/B drivers Install & Test		PASS	
FIC CD-PRO all Application Install & Test		PASS	
Device Management check (No Caution)		PASS	
VGA Resolution/Color change		PASS	
Large file Copy (one file Over 500MB)		PASS	
Install Office 2000		PASS	
VCD/DVD play (name: <i>Runaway Bride</i>)		PASS	
Power Management (Stand By function)	Power button	PASS	
	Keyboard Sleep Key	PASS	
	Start → Stand By item	PASS	
	Time Out	PASS	
S3 (Suspend To Memory)	Power button	PASS	
	Keyboard Sleep Key (98keyboard)	PASS	
	Start → Stand By item	PASS	
	Time Out	PASS	
Hibernate (Suspend To Disk)	Power button	PASS	
	Start → Hibernate item	PASS	
	Time Out	PASS	
System Shutdown	Power button	PASS	
	Start → Shut down item	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows 2000 Professional	5.00.2195	English	Microsoft	Pass
Windows 2000 Service Pack	2.0	English	Microsoft	Pass

9.1.5 Microsoft Windows NT 4.0 + Service Pack 6:

Test Configuration:

CPU Intel Pentium 4 1.5GHz ☒ Intel



Memory KingSton 256MB(Winbond) **Total : 512 MB** ☐PC100 ☒PC133
HDD Fujitsu MPG3307A 30.7GB IDE ☐PIO4 ☐ATA/66 ☒ATA/100
VGA Matrox Millennium G450 **Channel:** ☒PM ☐PS ☐SM ☐SS
Sound ALC201 AC'97 ☐Onboard ☒AGP 4X
CD-ROM ASUS DVD-E612 12X IDE DVD ☐PCI_Slot: __ ☒On board
Mouse Logitech Mouse+ Mouse **Channel:** ☐PM ☐PS ☒SM ☐SS
☐COM ☒PS/2

Test Item	Result	Remark
Install Win NT with NTFS (boot from CD)	PASS	
Install Service Pack 6.0	PASS	
Format FDD	PASS	
Cool boot 2 times under every combination	PASS	
Reboot 2 times under every combination	PASS	
VGA Resolution/Color change	PASS	
Large file Copy (one file Over 500MB)	PASS	
VCD/DVD play (name: <i>Deep Blue Sea</i>)	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
Windows NT Workstation	4.0	English	Microsoft	Pass
Windows NT Workstation Service Pack	6.0	English	Microsoft	Pass

9.1.6 IBM OS/2 4.0:

Test Configuration:

CPU Intel Pentium 4 1.5GHz ☒Intel
Memory Buffalo 128MB (Hitachi) **Total: 256 MB** ☐PC100 ☒PC133
HDD Fujitsu MPB3032AT 3.2GB IDE ☐PIO4 ☒ATA/33
Channel: ☒PM ☐PS ☐SM ☐SS



VGA Matrox Millennium G400 MAX

☒ PCI_Slot: 2 ☐ AGP

CD-ROM Acer DVP 1640A 16X IDE DVD

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

Mouse Logitech Mouse+ Mouse

☐ COM ☒ PS/2

Test Item	Result	Remark
Install OS/2 (HPFS)	PASS	
Format FDD	PASS	
XCOPY	PASS	
Diskcopy	PASS	
VGA Resolution/Color change	PASS	
DOS Windows	PASS	
OS/2 Windows	PASS	
PM function (H/W & BIOS)	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board

Operating System	Version	Language	Company	Status
IBM OS/2 Warp	4.0	English	IBM	Pass

9.1.7 LINUX :

Test Configuration:

CPU Intel Pentium 4 1.7GHz

☒ Intel

Memory KingMax 128MB (KingMax)

Total: 384 MB ☐ PC100 ☒ PC133

HDD WD 300 30GB IDE

☐ ATA/66 ☒ ATA/100

VGA ELSA GLADIAC 511

☐ Onboard ☒ AGP 4X

CD-ROM Afreedy DD-4010E 10X IDE DVD

Channel: ☐ PM ☐ PS ☐ SM ☐ SS

Mouse Logitech Mouse+ Mouse

☐ COM ☒ PS/2

The board is tested to ensure that it runs a complete a range of Operating Systems.

Operating System	Version	Language	Status
Red Hat	7.1	English	Pass
Open Linux	3.1	English	Pass

* You have to set "APIC mode"(BIOS item) to Enabled before install Open Linux 3.1

Test Engineer:

BIOS: Benson ShenOS: Scott LinI/O : Brad SuAudio: Stevent HuangCPU/Memory: Lion LiouVGA: Leon LiangLogo: Joy TsaiIDE Devices: Scott Lin



Check by: *Lion Liou*

Ownership: *Benson Shen*